

REMARKS/ARGUMENTS

Reconsideration of the present invention is hereby requested in view of the above amendments and following remarks.

Claims 34-36 and 38-42 are rejected under 35 U.S.C. 112 for lack of support in the specification and lack of antecedent basis. The claims have been amended to overcome these rejections. Further, in claim 42 "ration" has been changed to "ratio" as requested by the Examiner.

The Examiner states that the specification does not provide support for the feature of "an encoder to time-divisionally multiplex the picture signals in a video period and the control signal in a retrace period, thereby to encode the picture signals and the control signal into transmission path signals suited to the transmission path" claimed in claims 34 and 35, respectively.

It is submitted that support for this concept is described in the specification in paragraph [0109] as "Numeral 1602 denotes & transmission path encoding circuit, which encodes RGB signals outputted from the MPEG decoder 1601 into signals in the forms suited to the transmission path, and outputs the encoded signals during a scanning period, while superposes the top/bottom information and the field repeat information according to the form of the above-described control, data during a retrace period". See also Figure 16.

It is therefore submitted that the specification provides adequate support for the features as claimed in claims 34 and 35.

Further, the Examiner states that the specification does not provide support for the feature of "the control signal is time-division-multiplexed in a retrace period" as claimed in claims 38-40, respectively.

It is submitted that this concept is described in the specification in paragraph [0097] as "Therefore the output signal is the R signal during the video signal period while it is the CTL0 signal during the retrace period which means control data can be transmitted", and in Figure 10.

It is therefore submitted that the specification provides support for the features as claimed in claims 38-40.

The present invention is characterized by time-division-multiplexing the control signal (MPEG stream information etc.) into the base-band signal when outputting and transmitting the base-band signal.

Usually, after the base-band signal is obtained by decompressing and decoding the

compressed and coded signal, a control signal such as MPEG compression rate is not required. However, for example, in the digital interface between STV (transmission apparatus) and TV (receiving apparatus), a control signal is required in the original control such as picture quality control including noise reduction or enhancing, or display method control on the TV side.

According to the present invention, by time-division-multiplexing the control signal (MPEG stream information etc.) into the base-band signal when outputting and transmitting the base-band signal, it becomes unnecessary to again generate a control information from the base-band signal, and it becomes possible to provide contributions to reduction in a circuit scale and enhancement of the processing speed.

Moreover, initially, if a control signal is superimposed on a base-band signal having a large amount of information to be transmitted, signal lines or a transmission rate would unfavorably increase further. The present invention is intended to suppress the increases in the signal lines and the transmission rate to the minimum extent, which is provided by a construction in which "a picture signal is outputted after the permissible signal is checked on the basis of the I2C signal at the TV end". Therefore, it becomes possible for the picture signal to be transmitted in a form which can be displayed at the receiving apparatus end. The prior art does not teach this concept. As a result of the present invention increases in circuit scales and in transmission rate can be reduced.

Claims 33-42 are rejected over Kato et al. in view of Liu et al. and further with any one of Maruoka, Ryoo and/or Ishikawa et al under 35 U.S.C. 103.

The primary reference to Kato et al. (US2002/0001346) discloses a coding apparatus which divides a picture signal of N pixels x M lines to be coded into a first picture signal portion and a second signal portion other than the first signal portion, and adds particular discrimination codes to the header of the second picture portion. Further, Kato discloses a decoding apparatus which decodes the signal which is coded by the above-coding apparatus by decoding only the first picture signal portion when the decoding apparatus has only the ability of decoding only the first picture signal portion, with skipping the second picture signal portion by discriminating the same from the discrimination codes attached thereto.

In paragraph [0058] of Kato, it is disclosed that control signals, such as picture frame size, output bit rate, and picture structure signal, are outputted as compression coding control signals. Further, in paragraph [0100] of Kato; it is disclosed that header information is decoded by an inverse VLC element, the obtained control information for the decoding

picture signals are stored in a memory, and the decoding apparatus for decoding picture signals are controlled by those control information.

Here, while the coding apparatus is described in paragraph [0058] and the inverse VLC element described in paragraph [0100] correspond to the decoder in the present invention, it is only disclosed in Kato that the control of the decoding apparatus is only conducted based on the control signal obtained in this inverse VLC element. There is no description or suggestion in Kato that when the base-band signal is outputted after the decoding is performed, the control signal (MPEG stream information etc.) is multiplexed with the base-band signal to be transmitted together as set forth in the present invention. This is clear also from the facts that only the video signals are outputted in Figures 5, 6, and 8 of Kato.

Any attempt to modify Kato with Liu et al. would be a reconstruction of the Kato system which would not be suggested or be obvious to one of ordinary skill in the art. Similarly the combination of Kato with any of Maruska, Ryoo and/or Ishikawa would also fail for reasons set forth above.


In view of the amendments to the claims and the arguments set forth herein, it is respectfully requested that the rejection under 35 U.S.C. 112 and over newly cited prior art be reconsidered and withdrawn and the application passed to issue at an early date.

If the Examiner wishes to expedite disposition of the above-captioned patent application, he is invited to contact Applicant's representative at the telephone number below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-0289.

Respectfully submitted,

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